

From the INTERNATIONAL SEARCHING AUTHORITY

To: LEE, Young-Pil	REPORTING 28 SEI					
The Cheonghwa Building, 1571-18 Seocho-dong, Seocho-gu Seoul 137-874, Republic of KOREA JUL 1 4 2003	NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT OR THE DECLARATION (PCT Rule 44.1)					
RECEIVED	Date of mailing (day/month/year) 07 JULY 2003 (07.07.2003)					
Applicant's or agent's file reference SH-18948-PCT	FOR FURTHER ACTION See paragraphs 1 and 4 below					
International application No. PCT/KR03/00625	Intrenational filing date (day/month/year) 28 MARCH 2003 (28.03.2003)					
Applicant SAMSUNG ELECTRONICS CO., LTD. et al						
1. X The applicant is hereby notified that the international	search report has been established and is transmitted herewith.					
Filing of amendments and statement under Article The applicant is entitled, if he so wishes, to amend th When? The time limit for filing such amendments international search report.	19: e claims of the international application (see Rule 46): is normally two months from the date of transmittal of the					
Where? Directly to the International Bureau of W 34, chemin des Colombette 1211 Geneva 20, Switzerla Facsilime No.: (41-22) 740 For more detailed instructions, see the notes on the	nd .14.35					
2. The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.						
3. With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that: the protest together with the decision theron has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision theron to the designated Offices.						
	no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.					
applicant wishes to avoid or postpone publication, a notice of v	al application will be published by the International Bureau. If the vithdrawal of the international application, or of the priority claim, 1 and 90bis.3, respectively, before the completion of the technical					
examination must be filed if the applicant wishes to postpone the	some designated Offices, a demand for international preliminary ne entry into the national phase until 30 months from the priority, within 20 months from the priority date, perform the prescribed ffices.					
	ths(or later) will apply even if no demand is filed within 19 months.					
Guide, Volume II, National Chapters and the WIPO Internet site	pplicable time limits, Office by Office, see the PCT Applicant's e.					
Name and mailing address of the ISA/KR Authorized officer						



Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Dacjeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

COMMISSIONER

Telephone No. 82-42-481-5208



2004



INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER	see Notification of	Transmittal of International Search Report				
SH-18948-PCT	ACTION	0) as well as, where applicable, item 5 below.					
International application No.	International filing date	nal filing date (day/month/year) (Earliest) Priority Date (
PCT/KR03/00625	28 MARCH 2003 (28	3.03.2003)	28 MARCH 2002 (28.03.2002)				
Applicant							
SAMSUNG ELECTRONICS CO., LT	SAMSUNG ELECTRONICS CO., LTD. et al						
This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.							
This international search report consists of a t	total of 2 she	ets.					
It is also accompanied by a cop	y of each prior art docum	ent cited in this report	i. 				
Basis of the report a. With regard to the language, the int language in which it was filed, unless	ss otherwise indicated und	ler this item.					
the international search was car Authority (Rule 23.1(b)).	ried out on the basis of a t	ranslation of the inter	national application furnished to this				
b. With regard to any nucleotide and/ was carried out on the basis of the s	or amino acid sequence sequence listing:	disclosed in the intern	ational application, the international search				
contained in the international a	pplication in written form						
filed together with the internati	ional application in compu	iter readable form.					
furnished subsequently to this	Authority in written form.						
furnished subsequently to this	Authority in computer rea	dable form.					
	the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.						
the statement that the informati furnished.	on recorded in computer i	readable form is identi	cal to the written sequence listing has been				
2. Certain claims were found un	searchable (See Box I).						
3. Unity of invention is lacking (See Box II).						
4. With regard to the title,							
X the text is approved as submitte	d by the applicant						
the text has been established by	• "	s follows:					
,		, 10.110 11.01					
5. With regard to the abstract,							
X the text is approved as submitte	d by the applicant.						
the text has been established, ac	cording to Rule 38.2(b), t	by this Authority as it	appears in Box III. The applicant may,				
within one month from the date	within one month from the date of mailing of this international search report, submit comments to this Authority.						
6. The figure of the drawing to be publ	ished with the abstract is I	Figure No. 4					
x as suggested by the applicant.			None of the figures.				
because the applicant failed to s	because the applicant failed to suggest a figure.						
because this figure better charac	because this figure better characterizes the invention.						

. CLASSIFICATION OF SUBJECT MATTER

IPC7 G11B 7/24, G11B 7/26

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched KR, JP: IPC as above.

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used) "recording", "medium", "absorption", "dielectric", "layer", "diffusion", "magnetic", "spin", "direction"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
(X)	JP 11-066611 A (TDK CORP.) 9 MARCH 1999 See the claims	1, 23, 45	
(X)	JP 10-293942 A (NEC CORP.) 4 NOVEMBER 1998 See the whole document	1, 2, 4, 23, 24, 26, 45, 46, 48	
Y	See [0006] of the document	3, 25, 47	
Y	WO 98/38636 (ASAHI KASEI KOGYO LTD.) 3 SEPTEMBER 1998 See page 3. line 13 - page 4. line 2	1, 23, 45	
$\left(\begin{array}{c} x \\ \end{array} \right)$	KR P1998-025025 A (SHARP LTD.) 6 JULY 1998 See the whole document	9, 11, 12, 13, 31, 33, 34, 35, 53, 55, 56, 57	
Y	US 5,777,953 A (SHARP LTD.) 7 JULY 1998 See the whole document	9, 11, 12, 13, 31, 33, 34, 35, 53, 55, 56, 57	
Y	WO 2001/93259 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) 6 DECEMBER 2001 See the whole document	15, 59	

1	Further	documents	are li	sted in	the con	itinuation	ot	Box	C.
_	l .								

See patent family annex.

- Special categories of cited documents:
- 'A" document defining the general state of the art which is not considered to be of particular relevance
- 'E" earlier application or patent but published on or after the international
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

03 JULY 2003 (03.07.2003)

Date of mailing of the international search report

03 JULY 2003 (03.07.2003)

Name and mailing address of the ISA/KR



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